A REVIEW OF THE VALIDITY AND RELIABILITY OF THE PARKINSON’S DISEASE QUESTIONNAIRE (PDQ-39)

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OBJECTIVE: Patients with Parkinson’s Disease (PD) have diminished health related quality of life (HRQoL) due to a number of emotional, functional and physical limitations. We examined the reliability and validity of the PDQ-39 as both a discriminant and evaluative instrument for use in Parkinson’s disease studies. METHODS: We conducted a literature review using MEDLINE and HealthStar citing the PDQ-39, from 1995–2005 using the terms “Parkinson’s Disease Questionnaire or PDQ-39” limited to Humans and English language. We reviewed each publication for evidence supporting the instrument’s reliability face and content validity, construct validity measured as the correlation of the PDQ-39 responses with other relevant instruments and clinical measures, and test-retest reliability or intra class correlation coefficients. Discriminant abilities were evaluated by looking for evidence of significance between PD patients with varying levels of disability. Responsiveness was evaluated using change scores and established minimally important difference (MID). RESULTS: Thirty-nine papers met the inclusion criteria. Correlation of scales of the PDQ-39 with the Medical Outcomes Study 36-item Short Form (SF-36) showed strong correlation (>0.5). Intraclass correlation coefficients for each domain of the PDQ-39 ranged from 0.67 to 0.96 across studies. Mean scores for each domain were shown to be significantly different (p < 0.01) between PD patients with Hoehn & Yahr rating I, II, III, and IV. Changes in PDQ-39 scores were significantly correlated with changes in patients’ retrospective judgments of change (0.25–0.31, p < 0.01), and changes on the SF-36 (0.25–0.37, p < 0.05), but not with clinical assessments. Two studies calculated a MID for the PDQ-39 which varied between 5–10 points on the summary index and 2–11 points across domains. CONCLUSION: There is substantial evidence supporting the reliability and validity of the PDQ-39 as a discriminate instrument, but further research on its usefulness as an evaluative instrument is warranted to increase our confidence.

COMPARISON OF HEALTH-RELATED QUALITY OF LIFE QUESTIONNAIRES IN MULTIPLE SCLEROSIS: A REVIEW

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Multiple sclerosis (MS) being a progressive neurological disease with no cure, lends itself as an important area for health-related quality of life (HRQoL) research. A number of questionnaires have been designed to measure HRQoL in MS patients, but no one measure has been established as a gold standard. The large number of questionnaires also gives neurologists a range of choices but limited information on which to base their selection. In order to determine the relative advantages and disadvantages of the HRQOL questionnaires, a comparison of their psychometric properties in the same patient population is necessary. OBJECTIVE: To review the current literature and identify studies comparing psychometric properties of MS-related QOL measures within the same patient population. METHODS: Studies included were those that administered more than one HRQOL questionnaire in the same group of patients with MS. The search was restricted to the PUBMED and MEDLINE databases for articles published between 1991 and 2005. RESULTS: Of almost 30 MS-related QOL questionnaires, psychometric...
properties for only 8 have been compared in 4 different published studies. A common comparator in all four studies has been the Medical Outcomes Survey Short Form (SF-36). Responsiveness to change and patient preferences regarding the questionnaires have been compared less frequently. Overall, the Multiple Sclerosis Impact Scale (MSIS-29) has been shown to perform better over a range of psychometric properties compared to the commonly used MSQOL and the Functional Assessment in MS (FAMS). CONCLUSIONS: MSIS-29 appears to be a psychometrically sound measure of QOL in MS. However, owing to the paucity of psychometric comparisons in the MS literature, further rigorous head-to-head comparisons of newer as well as existing questionnaires with MSIS-29 are warranted. Such results can guide researchers in selecting an appropriate measure for use in clinical trials as well as routine clinical practice.

**CONCLUSIONS:**

**HEALTHCARE UTILIZATION AND PATIENT SATISFACTION WITH TRIPHTAN TREATMENT IN MIGRAINEURS**

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OBJECTIVES: Understanding the real-world effectiveness of triptans in migraine, a trial was conducted using patient-reported outcomes to evaluate the benefit of triptan therapy before and after switching to eletriptan 40 mg. METHODS: Physicians enrolled migraineurs into an open-label treatment-satisfaction study using web-based data collection technology. Patients’ demographic information, migraine experience, utilization of health care resources and level of satisfaction with prior migraine therapy (both prescription and over-the-counter treatments) were evaluated separately for headache pain relief, speed of pain relief and ability to return to daily activities. Patients were then switched to eletriptan 40 mg and their level of satisfaction across each outcome domain was measured for three migraine attacks. RESULTS: Of the 2778 patients enrolled (87.1% female; mean age, 37.4 years; 83.6% employed; averaged 5.5 attacks per month lasting a mean duration of 11 hours; 49.9% high health care utilizers [≥1 headache-related outpatient and/or emergency room visit per month]), 2303 (82.9%) treated at least one migraine attack with eletriptan 40 mg. Patient-reported satisfaction (4 or 5 on a 5-point scale) with eletriptan 40 mg was 68.8%, 57.2% and 62.8% for headache pain relief, speed of pain relief and ability to return to daily activities, respectively, and was significantly greater when compared with satisfaction with prior therapy (tripitan and non-triptan): 29.8%, 22.1% and 21.7%, respectively (p < 0.001). Seventy percent of high health care utilizers achieved satisfactory-to-completely-satisfactory pain relief on eletriptan 40 mg. Employed patients were significantly more satisfied (64.2%) than unemployed patients (56%) with eletriptan 40 mg (p < 0.01). CONCLUSION: Increased level of patient satisfaction on eletriptan when compared with prior therapy indicates a significant unmet need for optimized treatment of acute migraine in this patient population. Further research is required to determine whether increased satisfaction is associated with decreased health care utilization. Such real-world effectiveness data might be useful in formulary decision making and health care benefit design.

**OBJECTIVES:** Determine impact of a worksite disease management program (DMP) on work productivity loss among employees with migraines. METHODS: A total of 712 health risk assessment questionnaires were distributed to employees of a medical group (64% response rate), with 180 identified as migraineurs using IHS criteria from respondent self-report. Migraineurs were given a DMP which included: 1) tailored behavioral print material; 2) headache diary; 3) access to worksite presentations (“Lunch & Learns”) by a physician on triggers, diagnosis and treatment options, Q&A, and instruction on completion of the MIDAS (Migraine Disability Assessment); 4) headache tipsheets and suggestions for web-based resources; and 5) access to worksite physicians for same-day treatment. A follow-up questionnaire distributed 12 months post-launch revealed no nonresponse bias between respondents (n = 73) and nonrespondents (n = 107). The primary dependent measure of the evaluation was work productivity loss (WPL), which combined absenteeism (full and partial days missed due to headache) and presenteeism (days worked with headache and self-reported productivity) during the past four weeks. RESULTS: Only 52% of migraineurs recalled reading the provided tailored educational print materials on managing their headaches, 28% reported attending Lunch & Learn sessions, and 7–13% used other program components. Mean lost productivity dropped only slightly from baseline to follow-up (8.3 v 7.3 hours, NS). However, subgroup analyses revealed the program was effective in significantly (p < 0.05) reducing WPL for employees who 1) increased their level of confidence to control their headaches after program exposure (6.7 v 2.3 hours), and 2) sought medical care for headaches and used migraine prescription medications (13.4 v 4.1 hours). CONCLUSIONS: Overall, the DMP failed to reduce productivity loss among employees with migraines; however promising findings were observed for selected groups. Future programs need to identify effective strategies to improve self-confidence in headache management and to engage more migraineurs in seeking medication attention.

**ASSOCIATION BETWEEN BMI AND HEALTH CARE EXPENDITURES USING THE 2002 MEDICAL EXPENDITURE PANEL SURVEY**

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OBJECTIVES: The objective was to determine whether there was a significant association between Body Mass Index scale (underweight, normal, overweight, moderate obesity, severe obesity, and very severe obesity) and national medical expenditures (dependent variable) for persons, 18 to 65 years of age, controlling for demographics of gender, race, marital status, and education. METHODS: The database used was the Medical Expenditure Panel Survey (MEPS) for the year 2002. A two-part model was used to analyze the association between obesity and health care expenditures. The first part was a logistic regression or binary model, in which expenditures were either existent or non-existent. This model was adjusted by the demographic variables of gender, age, race, marital status, and education. The second part modelled the relationship between expenditure and BMI. This model was also adjusted by the study demographics. Park’s test was performed to determine which distribution family fit the data. In order to accomplish this a General Linear Model (GLM) framework was used. RESULTS: Approximately 64% of the sample was overweight or obese. The rest were normal or underweight. According to the logistic regression, Body Mass...